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ABSTRACT

A study examined the effects of an integrated reading/writing curriculum on the narrative writing of students in general education eighth-grade classrooms. Subjects, 93 students (including 10 with learning disabilities) from middle to upper-middle socioeconomic backgrounds at a suburban middle school in western Oregon, were administered narrative writing probes pre- and post-intervention to assess students' ability to plan, organize, and write stories for topic prompts. Students were enrolled in four sections taught by two teachers; students from one teacher's classes served as the experimental group and the other teacher's classes participated in the control condition. Instructional materials included 10 short stories. The integrated reading and writing curriculum was designed in three interdependent phases: learning narrative text structure; learning a writing process; and learning to generate stories. Students in the control condition received instruction and practice on narrative text comprehension. Results indicated that students in the experimental group significantly outperformed students in the control group--their stories contained more fully developed ideas, content, settings, characters, and attempts to solve the central problem than students in the control classrooms. Results also indicated that all students in the integrated condition benefitted from the curriculum, although students continued to have difficulty generating well-developed stories. Findings suggest the potential value of investing in curriculum development that equips learners with transferrable and maintainable knowledge. (Two tables of data are included; 22 references are attached.) (RS)

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Integrating Narrative Reading Comprehension and Writing Instruction for All Learners

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Integrating Narrative Reading Comprehension and Writing Instruction for All Learners

Educators face increasing pressure to achieve better outcomes for all students. From national education goals to standards in language arts, the consistent message is that schools must do a better job of preparing students for the 21st century. Such expectations come at a time when the academic, social, and cultural constitutions of classrooms have never been more complex or diverse (e.g., Hodgkinson, 1991; Kameenui, 1993). Perhaps in no other academic area do the complexities of subject matter and student diversity exact such high demands from teachers and curriculum as in the area of writing.

Results of the 1991 National Assessment of Educational Progress (NAEP) indicated that only 27 per cent of 315 eighth-grade students were able to write well-developed stories. This inadequate performance continues to exist despite more than a decade of concerted attention to writing processes and instruction. Research on writing has provided especially relevant findings regarding how to foster writing growth; nevertheless, limited research exists to inform teachers how to facilitate writing for the range of learners in heterogeneous classrooms. This study explored means of integrating narrative reading and writing instruction for the range of learners in general education eighth grade classes. The research was conducted as part of the efforts of the National Center to Improve the Tools of Educators (NCITE) to identify and validate principles of quality instructional tools.

A Framework for Curriculum Design

The diverse learning needs of students in today's classrooms require a more complete understanding of the instructional and curricular factors that can optimize writing experiences. This study united empirical knowledge from writing research with the following five principles of curriculum design (Kameenui & Carnine, in press) to develop a framework for integrating reading and writing instruction: big

idea, strategic integration, conspicuous strategies, mediated scaffolding, and judicious review.

Big idea: Narrative text structure. "Big ideas" are concepts or principles within a content area with the greatest potential for enabling students to apply what they learn in varied situations (Dixon et al., 1992). The validated premise of big ideas is that key concepts, rich in relationships and applicable across a wide array of phenomena, facilitate students' access to knowledge (Prawat, 1989). In reading and writing, text structure represents an example of a big idea. The underlying text structure in narrative prose is a grammar representing a set of rules and elements typically occurring in a story (Montague, Maddux, & Dereshiwsky, 1990). Building on the work of Dimino, Gersten, Carnine, and Blake (1990); Graves, Montague, & Wong (1990); and Nezworski, Stein, & Trabasso (1982), this study used the story grammar elements of setting, main character(s), character development, problem, problem attempts, problem resolution, conclusion, and theme.

Strategic integration: Reading and writing. Reading and writing taught together appear to engage learners in a greater variety of reasoning operations than when processes are taught separately. In a comprehensive examination of studies, including those with large and small sample sizes and learners of varying ages, Tierney and Shanahan (1991) found consistent support for integrated instruction of reading and writing. Further evidence suggests that integrated reading and writing also promotes writing development more than merely reading or writing (Englert, Raphael, Anderson, Anthony, & Stevens, 1991; Noyce & Christie, 1985; Shanahan & Lomax, 1986). The advantages of integrated reading and writing instruction have been documented for students with and without learning disabilities (Englert et al., 1991).

Conspicuous strategies: Writing process. Strategies are an organized, purposeful set of actions designed to accomplish a task. In reading, it is

recommended that strategies are (a) intentional and deliberate, and (b) flexible and adaptable, emphasizing reasoning and implying metacognitive awareness (Dole, Duffy, Roehler, & Pearson, 1991). Several researchers have addressed the effects of strategy instruction in writing. Englert et al. (1991), in particular, has documented the benefits of teaching a writing strategy with the acronym POWER (plan, organize, write, edit, and revise) to students with and without learning disabilities.

Mediated scaffolding. Scaffolding bridges the gap between a learner's current ability and the goal of instruction by providing support during developmental phases of learning (Vygotsky, 1978). Through mediated scaffolding, teacher and learners create a shared language enabling the teacher to provide useful, readily understood feedback to students when they need prompts to overcome difficulties (Gersten & Carnine, 1986). Scaffolding, or graduated support, may come from many forms including (a) individuals, (b) content, (c) materials, and (d) tasks.

Teachers may scaffold by cuing, prompting, questioning, elaborating, modeling, and constructing analogies and metaphors (Duffy & Roehler, 1989). Dimino et al., (1990) scaffolded content by using shorter, less complex stories to teach easier, more obvious story grammar elements (character, problem, attempts, and resolution). In writing instruction, material prompts may cue strategy use and help less-experienced students emulate mature writers' performance (Scardamalia & Bereiter, 1986). Research studies have investigated a range of material prompts including think-sheets to activate planning, organizing, drafting, editing, and revising (Englert & Raphael, 1989; Englert et al., 1991), note sheets for recording story grammar elements (Dimino et al., 1990), and story grammar cue cards, verbal reminders for character development, and metacognitive check-off procedures (Graves et al., 1990).

Judicious review. Reading and writing instruction requires an appropriate review schedule to reinforce and maintain knowledge (Simmons, Fuchs, & Fuchs,

1991). After reviewing research and theory relating to practice, Dempster (1991) concluded effective practice depends upon (a) time between repetitions, (b) frequency of repetitions, and (c) form of repetition. Effective reviews are also distributed over longer periods of time. Effective review is cumulative, integrating skills and strategies and providing review opportunities over extended time periods (Dixon, Carnine, & Kameenui, 1992). As skills and strategies for improving reading comprehension and writing are introduced, a firming cycle should be utilized (Kameenui & Simmons, 1990).

Purpose of the Study

This study examined the effects of an integrated reading/writing curriculum on the narrative writing of students in general education classrooms and extended previous research in two critical ways. First, the focus was on the full range of students in the general education classes. Students with disabilities were part of the general education classroom and were full participants in all classroom instructional activity. Second, the study examined the potential effects of a curriculum grounded in two empirical knowledge bases: (a) writing and (b) curriculum design.

Method

Subjects

The study was conducted in a suburban middle school serving approximately 600 students from middle to upper-middle socioeconomic backgrounds in western Oregon. Participants were 93 eighth-grade students, including ten students with learning disabilities (LD). The specific disabilities of students with LD were in reading, expressive writing, and/or spelling. They received content instruction in mainstream classes and study skill support in a resource room from a special education teacher. To examine potential differential effects of treatment on the range of learners, students were stratified into high, average, and low-achievers

based on performance on the vocabulary and reading comprehension subtests of the Comprehensive Test of Basic Skills (CTBS) administered in the fall of the study.

Two eighth-grade general education teachers participated in the study; each taught two sections of eighth-grade language arts in which students with LD were enrolled. Students from one teacher's classes served as the experimental group and the other teacher's classes participated in the control condition. Chi square analysis revealed no significant relations between the groups with respect to representation by learner type, gender, age, or teacher variables. Pretest performance on the vocabulary and comprehension subtests of the CTBS revealed no significant differences between experimental and control groups.

Measures

Narrative writing probes were administered pre- and post-intervention to assess students' ability to plan, organize, and write stories from topic prompts. Three prompts were counter-balanced across pre- and post-measures and administered by the treatment and control teachers. Dependent measures included the writing dimensions of content/ideas, organization, conventions, and writing mode. Dimensions were scored on a range of 1 - 5 (i.e., 1 = poorly developed; 5 = well-developed). Compositions were also analyzed for inclusion of story grammar elements. Graham and Harris' (1992) Scale for Scoring Inclusion and Quality of Parts of a Story was adapted to reflect story grammar elements emphasized in treatment. Each element was scored individually. Setting, problem, solution, and conclusion were assigned a score of 0 if not present, 1 if partially developed, and 2 if well developed. Main character and attempts were scored on a scale of 0-3. Scores were summed to represent overall quality of narrative writing, with a maximum score of 14 for narrative elements.

Procedures and Materials

Integrated condition. Instructional materials included 10 short stories used by Dimino et al. (1990); all contained eight story grammar elements and ranged in readability from fifth to eighth grade as measured by the Dale-Chall Readability Formula. Students used note sheets containing eight story grammar elements to plan their compositions, rough draft sheets to write initial compositions, and edit/revise checklists to guide revisions. These sheets were modifications of think-sheets developed by Englert et al. (1991) and contained varying degrees of prompting. The integrated reading and writing curriculum was designed in three interdependent phases.

Phase I: Learning narrative text structure. In this phase, students learned to identify story grammar elements in authentic short stories. They first learned to identify story grammar elements through teacher modeling. Next, students worked with a partner, then independently, to identify and record story grammar elements. Highly prompted note sheets listing story grammar elements and their explanations were used to scaffold learning.

Phase II: Learning a writing process. In Phase II, students maintained their knowledge of story grammar (big idea), and learned a strategy for planning, organizing, writing, editing, and revising, POWER (Englert, 1990). The goal of this phase was to combine story grammar knowledge and the writing strategy to generate story summaries. The cumulative introduction of story grammar (big idea) and POWER (conspicuous strategy) was designed to increase gradually the task demands on the learner while reinforcing previously learned information. Students read stories, identified story grammar elements, and practiced POWER. In interactive sessions, the teacher identified and noted story grammar elements on a less-prompted note sheet, while students completed their own note sheets. The teacher continued the sequence of modeling with each new component of the POWER

strategy. Following the modeled lessons, students worked with a partner, and then independently, to integrate reading and writing.

Phase III: Learning to generate stories. In Phase III, students applied their knowledge of story grammar and the POWER writing strategy to a more complex task: story writing. Task complexity was scaffolded by having students write first from picture prompts and then topics. As in previous phases, teachers modeled each new writing process followed by peer, and then independent application. Although material scaffolds were faded, they were always available to students if needed.

Control condition. Students in the control condition received instruction and practice on narrative text comprehension a total of 15 days distributed across 13 weeks. The teacher explicitly taught setting, characterization, and plot development. Students practiced identifying these story grammar elements from short stories either by reading or listening to stories. Students were also taught a writing strategy, Prepare, First Dare, Repair, for planning, drafting, editing, and revising compositions. They used a setting think sheet, character profile sheet, and story web to plan and generate narrative compositions.

Results

Writing Dimensions

Pretreatment. A 2 (writing condition) X 3 (learner type) MANOVA performed on the four writing dimensions indicated a significant main effect for learner type based on Wilks' lambda, $F(8, 168) = 3.02$, $p < .01$. The main effects for writing condition and the interaction of writing condition and learner type were nonsignificant, $p > .05$.

Insert Table 1 about here

Univariate ANOVAs with the four dimensions indicated a significant effect of learner type for ideas, $F(2,87) = 7.16$, $p < .01$, organization, $F(2,87) = 3.62$, $p < .05$, conventions, $F(2,87) = 6.84$, $p < .01$, and mode, $F(2,87) = 11.35$, $p < .01$. Followup comparisons indicated for ideas, conventions, and mode, the performance of high achievers (HA) was significantly higher than that of average achievers (AA) and low achievers (LA). On organization, HAs scored reliably higher than LAs. There were no reliable differences between HAs and AAs on organization (see Table 1).

Posttreatment. A 2 X 3 MANCOVA on the four posttreatment measures using pretest scores as covariates indicated a significant multivariate effect for writing condition, $F(4,80) = 2.57$, $p < .05$ and learner type, $F(8, 160) = 2.15$, $p < .05$. The condition by learner type interaction was nonsignificant, $p > .05$. Follow-up ANCOVAs indicated significant effects of writing condition for ideas, $F(1,83) = 6.24$, $p < .01$, with students in the integrated condition scoring reliably higher on the ideas dimension than students in the control condition. ANCOVA further indicated a significant group effect for conventions, $F(2,83) = 3.83$, $p < .05$. Follow-up comparisons revealed that both the HA and AA students scored significantly higher than the LA students on conventions.

Story Grammar Elements

Pretreatment. A 2 (writing condition) X 3 (learner type) MANOVA performed on the six story grammar elements indicated no significant multivariate effect for condition, $F(6,82) = .62$, learner type (HA, AA, LA), $F(12,164) = 1.15$), or the interaction of learner type and condition, $F(12,164) = 1.37$.

Insert Table 2 about here

Posttreatment. A 2 (condition) X 3 (learner type) MANOVA on the six posttreatment measures indicated a significant multivariate effect for condition,

$F(6,82) = 3.26$, $p < .01$. Effects for learner type, $F(12, 164) = .81$, and the condition by learner type interaction, $F(12, 164) = .85$ were nonsignificant.

ANOVAs revealed significant treatment effects favoring the performance of students in the experimental conditions on setting, $F(1,87) = 8.03$, $p < .01$ character, $F(1,87) = 9.36$, $p < .01$, and attempts, $F(1,87) = 6.07$, $p < .05$. There were no reliable differences between treatment conditions on problem, resolution, or conclusion.

Discussion and Implications

The exploratory nature and small sample of this study will require further investigation to establish the replicability and stability of our findings. Nevertheless, because this is one of few investigations attempting to study the effects of an integrated reading/writing curriculum on the full range of learners in general education, several findings are worthy of note.

The first finding addresses the question of the effectiveness of a curriculum based on big ideas, conspicuous strategies, strategic integration, mediated scaffolding, and judicious review. Results of multivariate analyses indicated that students who received the integrated reading and writing instruction significantly outperformed students receiving the alternative narrative instruction in the control classrooms. Findings indicated significant effects favoring the integrated condition as students' stories contained more fully developed ideas and content. Results further signified that students in the integrated condition included more fully developed settings, characters, and attempts to solve the central problem of the story than students in the control classrooms. The effect on students' character development is of particular significance given recent results of national writing assessments indicating students' poor character development in stories (Mullis, Dossey, Foertsch, Jones, & Gentile, 1991).

A second finding of importance addressed the effects of the integrated curriculum on the range of learners in classrooms. Results indicated that all

students in the integrated condition benefitted from the curriculum grounded in curriculum design principles. Though the pretest-posttest difference was statistically significant, the mean performance of even the higher achievers on story grammar elements accounted for only 60% of the total possible points. Across writing dimensions and story grammar elements, students continued to have difficulty generating well-developed stories.

In this study, the range of students in the integrated reading and writing groups demonstrated modest yet not insignificant growth in story writing. If we as a literacy community can agree that story writing is valued and important, we can likewise call for more systematic attention to curriculum development and instruction in this area. The complexity and diversity of today's classrooms give cause for an economy and efficiency of instruction. One of the implications is identifying those big ideas and strategies that are truly important and equip learners with transferrable and maintainable knowledge. Current findings suggest the potential value in investing in such curriculum development.

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Table 1

Pretreatment, Posttreatment, and Adjusted Posttreatment Dimension Scores on Narrative Writing Probes by Treatment Group and Learner Type[a]

Variable[b]		Integrated M	Integrated (SD)	Control M	Control (SD)
Ideas					
HA	Pretreatment	3.57	.61	3.09	.83
	Posttreatment	3.46	.69	3.09	.80
	Adjusted Post	3.38		2.98	
AA	Pretreatment	2.84	.64	2.78	.81
	Posttreatment	3.43	.88	3.24	.77
	Adjusted Post	3.47		3.22	
LA	Pretreatment	2.58	.64	2.59	.66
	Posttreatment	3.19	.83	2.55	.96
	Adjusted Post	3.33		2.56	
Organization					
HA	Pretreatment	3.54	.56	2.86	.84
	Posttreatment	3.35	.63	3.18	.56
	Adjusted Post	3.18		3.14	
AA	Pretreatment	2.86	.54	2.76	.89
	Posttreatment	3.30	.68	3.11	.74
	Adjusted Post	3.32		3.12	
LA	Pretreatment	2.88	.71	2.45	.65
	Posttreatment	3.15	.77	2.82	.87
	Adjusted Post	3.21		2.91	
Conventions					
HA	Pretreatment	3.85	.86	3.45	.79
	Post treatment	3.73	.97	3.41	.58
	Adjusted Post	3.56		3.31	
AA	Pretreatment	2.98	.73	3.30	.82
	Posttreatment	3.61	.95	3.46	.66
	Adjusted Post	3.66		3.44	
LA	Pretreatment	2.81	.90	2.77	.75
	Posttreatment	2.89	.85	2.86	.84
	Adjusted Post	3.00		2.93	

(table continues)

Table 1 (continued)

Pretreatment, Posttreatment, and Adjusted Posttreatment Dimension Scores on Narrative Writing Probes by Treatment Group and Learner Type[a]

Variable[b]		Integrated M	Integrated (SD)	Control M	Control (SD)
Mode					
HA	Pretreatment	3.69	.88	3.36	.92
	Post treatment	3.54	.78	3.41	.49
	Adjust Post	3.39		3.37	
AA	Pretreatment	2.75	.81	2.70	.86
	Posttreatment	3.48	.79	3.17	.82
	Adjusted Post	3.51		3.15	
LA	Pretreatment	2.42	.70	2.50	.50
	Posttreatment	3.23	.60	3.05	1.17
	Adjusted Post	3.33		3.12	

[a] The n for students in the intervention condition: High achieving (HA) = 13, average achieving (AA) = 22, and low achieving (LA) = 13; for the control condition: HA = 11, AA = 23, and LA = 11.

[b] The range of scores for each dimension was 0-5.

Table 2

Pretreatment and Posttreatment Scores for Story Grammar Elements by Treatment Group and Learner Type[a]

Variable		Integrated M	Integrated (SD)	Control M	Control (SD)
Setting					
HA	Pretreatment	.93	(.28)	1.18	(.40)
	Posttreatment	1.15	(.38)	1.00	(.45)
AA	Pretreatment	1.00	(.44)	1.00	(.30)
	Posttreatment	1.19	(.39)	1.00	(.52)
LA	Pretreatment	1.00	(.00)	.91	(.30)
	Posttreatment	1.31	(.48)	.82	(.40)
Character					
HA	Pretreatment	1.19	(.38)	1.45	(.82)
	Posttreatment	1.58	(.64)	1.09	(.30)
AA	Pretreatment	1.09	(.33)	1.17	(.47)
	Posttreatment	1.20	(.50)	1.09	(.29)
LA	Pretreatment	1.12	(.22)	.91	(.31)
	Posttreatment	1.35	(.47)	1.05	(.47)
Problem					
HA	Pretreatment	1.38	(.51)	1.09	(.70)
	Posttreatment	1.23	(.60)	1.27	(.47)
AA	Pretreatment	.98	(.55)	.91	(.60)
	Posttreatment	1.45	(.51)	1.26	(.45)
LA	Pretreatment	.92	(.49)	1.18	(.40)
	Posttreatment	1.23	(.60)	1.00	(.63)

Table 2 (continued)

Pretreatment and Posttreatment Scores for Story Grammar Elements by Treatment Group and Learner Type[a]

		Integrated		Control	
Variable[b]		M	(SD)	M	(SD)
Attempts					
HA	Pretreatment	1.27	(.67)	.77	(.88)
	Post treatment	1.23	(.73)	.68	(.46)
AA	Pretreatment	.64	(.66)	.67	(.78)
	Posttreatment	1.27	(.70)	1.02	(.75)
LA	Pretreatment	.77	(.44)	.73	(.61)
	Posttreatment	1.00	(.82)	.68	(.56)
Resolution					
HA	Pretreatment	.92	(.64)	.73	(.47)
	Posttreatment	.77	(.60)	.72	(.65)
AA	Pretreatment	.50	(.51)	.57	(.59)
	Posttreatment	1.09	(.61)	.78	(.52)
LA	Pretreatment	.77	(.44)	.64	(.50)
	Posttreatment	.85	(.38)	.73	(.65)
Conclusion					
HA	Pretreatment	.92	(.49)	.90	(.54)
	Posttreatment	1.00	(.58)	1.00	(.00)
AA	Pretreatment	.77	(.53)	.61	(.50)
	Posttreatment	1.09	(.29)	.91	(.60)
LA	Pretreatment	.77	(.44)	.55	(.52)
	Posttreatment	.85	(.55)	.82	(.60)

[a] The n for students in the intervention condition: High achieving (HA) = 13, average achieving (AA) = 22, and low achieving (LA) = 13; for the control condition: HA = 11, AA = 23, and LA = 11.

[b] The range of scores for setting, problem, resolution, and conclusion was 0-2; for character and attempts, 0-3.